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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,225	02/11/2004	Hitoshi Ogino	2936-0209P	9982

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EXAMINER

CHAN, RICHARD

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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06/22/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/775,225

Applicant(s)

OGINO, HITOSHI

Examiner

Richard Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/11/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fanous (US 6,586,996) in view of Fanous's background invention.

With respect to claim 1, Fanous discloses the digital broadcast receiving tuner comprising; Fig.4 discloses specifically the portion of the receiving tuner which implements a down-converting unit 432 which directly converts a high-frequency signal into a baseband signal into demodulator 446, or converts a high-frequency signal into an intermediate frequency signal and then further converts said intermediate frequency signal into a baseband signal; (Col.7 line 16-27) and (Col.7 line 43-60)

Fanous continues to disclose in Fig.14 a gain adjuster (1408, 1410, 1412) which adjusts a level of said high-frequency signal and/or said intermediate frequency signal in correspondence with an automatic gain control (AGC 1406) controlling voltage supplied from an external source; (Col.15 line 1-23) an amplifier 442 which adjusts a level of said baseband signal; and a controlling unit 446 which controls a gain of said amplifier in response to a signal being independent of said AGC controlling voltage. (Col.7 line 61-Col.8 line 17)

It would have been obvious to implement the teachings of having a independently controlled amplifier 1408 as disclosed in Fig.14 to be implemented on the tuner staged amplifier 442 in Fig.4 in order to obtain independent control of the amplification within the baseband stage of the receiver.

With respect to claim 2, Fanous discloses the digital broadcast receiving tuner according to claim 1, wherein said signal independent of said AGC controlling voltage is one that reflects frequency characteristics of a level of received signals within a receivable frequency band width. (Col.15 line 5 –7)

With respect to claim 3, Fanous discloses the digital broadcast receiving tuner according to claim 1, wherein said signal independent of said AGC 1406 controlling voltage is a signal output from a versatile port of a semiconductor integrated circuit device loaded in said down-converting unit. (Col.15 line 15-21)

With respect to claim 4, Fanous discloses the digital broadcast receiving tuner according to claim 1, wherein said signal independent of said AGC 1406 controlling voltage is one that reflects frequency characteristics of a level of received signals within a receivable frequency band width and simultaneously is a signal output from a versatile port of a semiconductor integrated circuit device loaded in said down-converting unit. (Col. 15 line 5-7 and Col.15 line 15-21)

With respect to claim 5, Fanous discloses the digital broadcast receiving tuner according to claim 1, wherein said controlling unit 1406 controls said gain of said amplifier (1408, 1410, 1412) so as to be variable continuously. (Col.15 line 18-23)

With respect to claim 6, Fanous discloses the digital broadcast receiving tuner according to claim 2, wherein said controlling unit 1406 controls said gain of said amplifier (1408, 1410, 1412) so as to be variable continuously. (Col.15 line 18-23)

With respect to claim 7, Fanous discloses the digital broadcast receiving tuner according to claim 3, wherein said controlling unit controls said gain of said amplifier (1408, 1410, 1412) so as to be variable continuously. (Col.15 line 18-23)

With respect to claim 8, Fanous discloses the digital broadcast receiving tuner according to claim 4, wherein said controlling unit controls said gain of said amplifier (1408, 1410, 1412) so as to be variable continuously. (Col.15 line 18-23)

With respect to claim 9, Fanous discloses the digital broadcast receiving device comprising; a digital broadcast receiving tuner Fig.4 430 a demodulator 446 which demodulates a baseband signal output from said digital broadcast receiving tuner 430; an automatic gain control (AGC) 442 controlling voltage generator which generates an AGC controlling voltage through feedback path 448 based on said baseband signal; a signal generator 440; a correction unit which corrects said AGC controlling voltage in

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correspondence with condition of a received signal; wherein said digital broadcast receiving tuner further comprising; a down-converting unit 438 which directly converts a high-frequency signal into a said baseband signal through filter 442, or converts a high-frequency signal into an intermediate frequency signal and then further converts said intermediate frequency signal into a said baseband signal; (Col.7 line 16-27) and (Col.7 line 43-60)

Fanous continues to disclose in Fig.14 a gain adjuster unit 1408 which adjusts a level of said high-frequency signal through amplifier 1404 and/or said intermediate frequency signal in correspondence with said AG controlling voltage supplied from an external source controlled by AGC 1406; (Col.15 line 1-23) an amplifier 442 which adjusts a level of said baseband signal; a controlling unit 446 which controls a gain of said amplifier 442 in response to a signal being independent of said AGC controlling voltage; wherein said signal generator generates said signal independent of said AGC controlling voltage based on said baseband signal. (Col.7 line 61-Col.8 line 17)

It would have been obvious to implement the teachings of having a independently controlled amplifier 1408 as disclosed in Fig.14 to be implemented on the tuner staged amplifier 442 in Fig.4 in order to obtain independent control of the amplification within the baseband stage of the receiver.

With respect to claim 10, Fanous discloses the digital broadcast receiving device according to claim 9, wherein said signal independent of said AGC controlling voltage is one that reflects frequency characteristics of a level of said received signal within a

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receivable frequency band width. (Col.15 line 5 –7)

With respect to claim 11, Fanous discloses the digital broadcast receiving device according to claim 9, wherein said signal independent of said AGC 1406 controlling voltage is a signal output from a versatile port of a semiconductor integrated circuit device loaded in said down-converting unit. (Col.15 line 15-21)

With respect to claim 12, Fanous discloses the digital broadcast receiving device according to claim 9, wherein said signal independent of said AGC 1406 controlling voltage is one that reflects frequency characteristics of a level of a received signal within a receivable frequency band width and simultaneously is a signal output from a versatile port of a semiconductor integrated circuit device loaded in said down-converting unit. (Col. 15 line 5-7 and Col.15 line 15-21)

With respect to claim 13, Fanous discloses the digital broadcast receiving device according to claim 9, wherein said controlling unit controls said gain of said amplifier so as to be variable continuously. (Col.15 line 18-23)

With respect to claim 14, Fanous discloses the digital broadcast receiving device according to claim 10, wherein said controlling unit controls said gain of said amplifier so as to be variable continuously. (Col.15 line 18-23)

With respect to claim 15, Fanous discloses the digital broadcast receiving device according to claim 11, wherein said controller controls gain of said amplifier so as to be variable continuously. (Col.15 line 18-23)

With respect to claim 16, Fanous discloses the digital broadcast receiving device according to claim 12, wherein said controller controls gain of said amplifier so as to be variable continuously. (Col.15 line 18-23)

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Knutson reference (US 6,658,242) discloses a TDMA wireless telephone system with independently tracked demodulation parameters.

The Curtis reference (US 6,359,944) discloses a tuning system for achieving quick acquisition times for a digital receiver.

The Shiue reference (US 6,590,872) discloses a receiver with parallel correlator for acquisition of spread spectrum digital transmission.

The Townsend reference (US 5,548,833) discloses a data independent automatic gain control circuit for telecommunication applications.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chan whose telephone number is (571) 272-0570. The examiner can normally be reached on Mon - Fri (9AM - 5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Chan
Art Division 2618
6/10/07




NAY MAUNG
SUPERVISORY PATENT EXAMINER